AMENDMENTS TO THE CLAIMS:

Complete Listing of Claims

1   1. (currently amended) A graphing calculator having a points of interest
2   user interface comprising:

3   a screen capable of displaying at least straight lines in any direction and a
4   cursor;

5   a key panel having keys at least capable of selecting positions of said
6   cursor and moving said cursor horizontally or vertically on said screen;

7   a processor <u>programmed to provide the</u> ~~for executing programming that~~
8   ~~provides a~~ points of interest user interface having the following steps:

9   a) providing an input display to allow the user to define a plurality of
10   equations, inequalities and vertical lines,

11   <u>b) providing a points of interest display screen,</u>

12   <u>c</u>b) <u>displaying graphs of</u> ~~graph~~ the defined equations, inequalities and
13   vertical lines <u>on the points of interest display screen,</u>

14   ~~c) provide a points of interest display screen,~~ and

15   d) <u>jumping</u> ~~allow the user to jump~~ the cursor between <u>points of interest,</u>
16   <u>comprising</u> intersection points <u>of the graphs on the points of interest display</u>
17   <u>screen, in response to</u> ~~with~~ a single key command ~~on the points of interest~~
18   ~~display screen.~~

1   2. (currently amended) The graphing calculator of Claim 1, wherein said
2   processor is further programmed to store the location of the cursor at ~~desired~~
3   points <u>of interest</u> with a store command that comprises a single key stroke.

1   3. (original) The graphing calculator of Claim 2, wherein said processor is
2   further programmed to allow the user to display the stored points of interest and
3   use the stored points of interest for other calculator functions.

1   4. (original) The graphing calculator of Claim 1, wherein said processor is
2   further programmed to input equations, inequalities and lines using a Y=Editor
3   and an X=Editor.

1   5. (currently amended) The graphing calculator of Claim 1, <u>wherein said</u>
2   <u>processor is further programmed to provide</u> ~~further comprising~~ an indication on
3   the <u>points of interest</u> display <u>screen</u> of ~~the~~ current coordinates of the cursor.

1   6. (currently amended) The graphing calculator of Claim 1, <u>wherein said</u>
2   <u>processor is further programmed to provide</u> ~~further comprising~~ an indication on
3   the <u>points of interest</u> display <u>screen</u> of which equation, inequality or vertical lines
4   contributed to the point of interest indicated at the cursor location.

1   7. (currently amended) The graphing calculator of Claim 6, wherein the
2   indication on the <u>points of interest</u> display <u>screen</u> of which function or vertical
3   lines contributed to the point of interest indicated at the cursor location includes
4   <u>an</u> ~~the~~ intersection symbol for equations that include the line and does not use
5   the intersection symbol for strict inequalities.

1   8. (currently amended) A graphing calculator having a points of interest

2 display comprising:

3   a screen capable of displaying at least straight lines in any direction and a

4 cursor;

5   a key panel having keys at least capable of selecting positions of said

6 cursor and moving said cursor horizontally or vertically on said screen;

7   a processor <u>programmed with points of interest programming</u> ~~for~~

8 ~~executing points of interest programming that instructs said processor~~ to perform

9 the following steps:

10   a) providing an input display to allow the user to define equations and

11 vertical lines,

12   b) <u>displaying graphs of</u> ~~graph~~ the defined equations and vertical lines <u>on</u>

13 <u>the points of interest display,</u>

14   ~~c) provide a points of interest display,~~

15   <u>c</u>d) <u>jumping</u> ~~allow the user to jump~~ the cursor between <u>points of interest</u>

16 <u>comprising</u> intersection points <u>of the graphs on the points of interest display</u>

17 <u>screen, in response to</u> ~~with~~ a single key command which moves the cursor to

18 another point of interest with each key activation, and

19   <u>d</u>e) <u>storing</u> ~~allow the user to store~~ the location of the cursor at ~~desired~~

20 points <u>of interest in response to</u> ~~with~~ a store command.

1   9. (original) The graphing calculator of Claim 8, wherein said processor is

2 further programmed to allow the user to display the stored points of interest and

3 use the stored points of interest for other calculator functions.

1   10. (currently amended) The graphing calculator of Claim 9, <u>wherein said</u>

2 <u>processor is further programmed to provide</u> ~~further comprising~~ an indication on

3 the <u>points of interest</u> display of the current X and Y coordinates of the cursor.

1   11. (currently amended) The graphing calculator of Claim 10, <u>wherein</u>
2   <u>said processor is further programmed to provide</u> ~~further comprising~~ an indication
3   on the <u>points of interest</u> display of which function or vertical lines contributed to <u>a</u>
4   ~~the~~ point of interest indicated at <u>a current</u> ~~the~~ cursor location.

1   12. (currently amended) The graphing calculator of Claim 11, wherein
2   the indication on the display of which function or vertical lines contributed to the
3   point of interest indicated at the cursor location includes <u>an</u> ~~the~~ intersection
4   symbol for equations that include the line and does not use the intersection
5   symbol for strict inequalities.

1   13. (currently amended) The graphing calculator of Claim 8<u>, wherein said</u>
2   <u>processor is further programmed to execute</u> ~~further comprising~~ an algorithm to
3   compute intersection points using a numerical root-finder which uses XMIN and
4   XMAX for <u>a</u> ~~the~~ graph window as the upper and lower bounds on the solution
5   and the initial guess taken as <u>a</u> ~~the~~ current cursor <u>location</u> ~~position~~.

1   14. (currently amended) The graphing calculator of Claim 8<u>, wherein said</u>
2   <u>processor is further programmed to execute</u> ~~further comprising~~ an algorithm to
3   compute intersection points of linear inequalities to find ~~the~~ points of interest
4   around <u>a</u> ~~the~~ boundary of a solution set to the linear inequalities by iterating <u>a</u> ~~the~~
5   Simplex algorithm.

1   15. (currently amended) A <u>method for providing a</u> ~~software~~ user interface

2   for a graphing calculator having the following steps:

3   a) providing an input display to allow the user to define a plurality of

4   equations, inequalities and vertical lines,

5   <u>b) providing a points of interest display screen,</u>

6   <u>c</u>~~b~~) <u>displaying graphs of</u> ~~graph~~ the defined equations, inequalities and

7   vertical lines <u>on the points of interest display screen,</u> <u>and</u>

8   ~~c) provide a points of interest display screen, and~~

9   d) <u>jumping a</u> ~~allow the user to jump the~~ cursor between <u>points of interest</u>

10   <u>comprising</u> intersection points <u>of the graphs on the points of interest display</u>

11   <u>screen, in response to</u> ~~with~~ a single key command ~~on the points of interest~~

12   ~~display screen.~~

1   16. (currently amended) The <u>method</u> ~~user interface~~ of Claim 15, <u>further</u>

2   <u>comprising the step of storing a</u> ~~wherein said processor is further programmed to~~

3   ~~store the~~ location of the cursor at <u>points of interest in response to</u> ~~desired points~~

4   ~~with~~ a store command that comprises a single key stroke.

1   17. (currently amended) The <u>method</u> ~~user interface~~ of Claim 16, <u>further</u>

2   <u>comprising the steps of:</u>

3   ~~wherein said processor is further programmed to allow the user to display the~~

4   ~~stored~~

5   <u>a) displaying</u> points of interest <u>at the stored locations,</u> and

6   <u>b) using</u> ~~use~~ the stored <u>locations of</u> points of interest for other calculator

7   functions.

1   18. (currently amended) The method user interface of Claim 15, wherein
2 said step of providing an input display further comprises providing an input
3 display processor is further programmed to input equations, inequalities and
4 lines using a Y=Editor and an X=Editor.

1   19. (currently amended) The method user interface of Claim 15, further
2 comprising the step of providing an indication on the points of interest display
3 screen of which functions equation, inequality or vertical lines contributed to a
4 the point of interest indicated at a the cursor location.

1   20. (currently amended) The method user interface of Claim 19, wherein
2 the indication on the points of interest display screen of which function or vertical
3 lines contributed to the point of interest indicated at the cursor location includes
4 an the intersection symbol for equations that include the line and does not
5 include use the intersection symbol for strict inequalities.

1   21. (currently amended) The method user interface of Claim 15 further
2 comprising the step of executing an algorithm to compute intersection points
3 using a numerical root-finder which uses XMIN and XMAX for the graph window
4 as the upper and lower bounds on the solution and an the initial guess taken as
5 the current cursor position.

1   22. (currently amended) The method user interface of Claim 15 further
2 comprising the step of executing an algorithm to compute intersection points of
3 linear inequalities to find the points of interest around a the boundary of a
4 solution set to the linear inequalities by iterating a the Simplex algorithm.